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Two PSP Outbreaks Hit Juneau

Cases 1 and 2

On November 16, a family of three dug clams at Pt. Louisa, Auke Bay Recreational Area, Juneau, during a low tide. That evening, the husband "tested" the clams by eating two of them. He experienced no ill effects so he boiled the clams for dinner. The husband ate 5 clams, the wife ate 6 clams, and their son ate 4 clams. Within 30 minutes, both the wife (36 years old) and son (12 years old) experienced perioral numbness and tingling, nausea and vomiting. In addition the wife noted an immediate headache, flushing, and floating sensation. They went to the ER and were evaluated for paralytic shellfish poisoning (PSP). After 6 hours, they were released and recovered uneventfully. The littleneck clams contained 33 µ g/100 gm tissue of PSP toxin, and the butter clams contained 201 µ g/100 gm tissue (action level is greater than or equal to 80 µ g/100 gm tissue).

Case 3

On November 23, a 30-year-old resident of Juneau was seen at Bartlett Regional Hospital with dizziness and perioral and extremity numbness. This person consumed approximately two clams while tasting a chowder made of steamed clams and their juice. The clams had been gathered 4 days earlier in Amalga Harbor. Another family member had "tested" the clams by consuming a large number of clams on November 22. When no PSP symptoms developed, the clams were considered safe and were made into a chowder on November 23. The case became dizzy within 5 minutes of consuming the clam chowder. Numbness followed within 15 minutes. The person was treated by hospital staff and recovered. The other family member also consumed some of the chowder but did not develop any symptoms. The chowder tested negative for PSP toxin.

Discussion

Both families involved in these outbreaks of PSP knew about PSP and tried to "taste test" the clams prior to eating a full meal. There is no reliable way to "taste test" recreationally dug clams prior to eating them. Efforts to do so may lead to the incorrect assumption that clams from the same batch are safe to eat. Clams within any batch may contain different amounts of PSP toxin. It is common for several persons to eat from the same batch with only one or a few of them becoming ill. While the clams and chowder involved in case 3 did not have detectable toxin when tested, the individual had classical symptoms of PSP. This further underscores the variability of toxin levels within a single batch of clams.

The toxin which causes PSP can be present at any time in the marine environment in Alaska. **Beaches used for recreational clamming are not tested for PSP.** People who eat recreational shellfish should be aware of PSP symptoms (Table 1) and go to the nearest medical facility if symptoms develop. Vomiting should be induced mechanically (placing finger down the throat) or with syrup of ipecac. There is no specific treatment. Mechanical ventilation may be required until the effects of the toxin resolve, usually within 24 hours.

Table 1. Symptoms of Paralytic Shellfish Poisoning		
Paresthesias	Shortness of breath	Dry mouth
Perioral numbness	Dizziness	Dysarthria
Perioral tingling	Ataxia	Dysphagia
Extremity numbness	Weakness	Nausea
Extremity tingling	Floating sensation	Vomiting

Recommendations

1. Persons who wish to avoid PSP should not collect and eat shellfish in Alaska. Shellfish sold commercially are routinely tested and are safe for consumption.
2. Persons who eat self-collected shellfish should be aware of the symptoms of PSP and go to the nearest medical facility if symptoms occur. Respiratory support is critical and lifesaving.
3. PSP is a public health emergency. All suspected cases should be reported to the Section of Epidemiology at 269-8000 (business hours) or 1-800-478-0084 (after hours). Leftover clams should be saved for testing.

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